



101 510725

CofC

Docket No.: SON-2647
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Letters Patent of:

Confirmation No.: 7337

Minoru SUGAWARA

Patent No.: 7,170,683

Issued: January 30, 2007

For: REFLECTOR FOR EXPOSURE LIGHT AND ITS
MANUFACTURE METHOD, MASK, EXPOSURE
APPARATUS AND SEMICONDUCTOR DEVICE
MANUFACTURE METHOD

REQUEST FOR CERTIFICATE OF CORRECTION

Attention: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

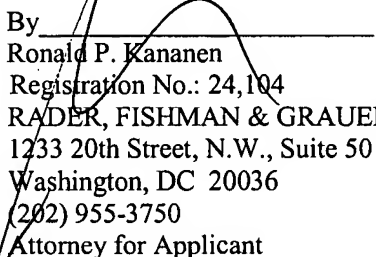
Dear Sir:

It is respectfully requested that a Certificate of Correction be issued in connection with the above-identified patent. It appears that a mistake recorded through the fault of the Patent and Trademark Office in the printing of the patent as clearly disclosed by the records of the Office within the meaning of 35 USC § 254. Accordingly, two copies of the special Certificate of Correction are attached hereto. It is believed that the error noted is an error of consequence involving the title of the invention and thus warrants the granting of a Certificate of Correction. Copies of the first page of the application showing the correct title, the declaration showing the correct title, and the Official Filing Receipt with the correct title are enclosed for the convenience of the PTO. It is believed that the error was made on the part of the PTO and that no government fee is required.

Should any costs be incurred, please consider this authorization to charge Deposit Account No. 18-0013.

Dated: June 26, 2007

Respectfully submitted,

By 
Ronald P. Kananen
Registration No.: 24,104
RADER, FISHMAN & GRAUER PLLC
1233 20th Street, N.W., Suite 501
Washington, DC 20036
(202) 955-3750
Attorney for Applicant

Certificate
JUN 28 2007
of Correction

JUN 28 2007

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,170,683

DATED : January 30, 2007

INVENTOR(S): Minoru SUGAWARA

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page:

Item (54) should be read as follows:

-- REFLECTOR FOR EXPOSURE LIGHT AND ITS MANUFACTURE METHOD, MASK,
EXPOSURE APPARATUS AND SEMICONDUCTOR DEVICE MANUFACTURE METHOD --.

MAILING ADDRESS OF SENDER:

Customer No. 23353
Rader, Fishman & Grauer PLLC
1233 20th Street, NW
Suite 501
Washington, DC 20036

PATENT NO. 7,170,683

JUN 28 2007

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,170,683

DATED : January 30, 2007

INVENTOR(S): Minoru SUGAWARA

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page:

Item (54) should be read as follows:

-- REFLECTOR FOR EXPOSURE LIGHT AND ITS MANUFACTURE METHOD, MASK,
EXPOSURE APPARATUS AND SEMICONDUCTOR DEVICE MANUFACTURE METHOD --.

MAILING ADDRESS OF SENDER:

Customer No. 23353
Rader, Fishman & Grauer PLLC
1233 20th Street, NW
Suite 501
Washington, DC 20036

PATENT NO. 7,170,683

JUN 28 2007



DESCRIPTION

REFLECTOR FOR EXPOSURE LIGHT AND ITS MANUFACTURE
METHOD, MASK, EXPOSURE APPARATUS AND SEMICONDUCTOR

5 DEVICE MANUFACTURE METHOD

TECHNICAL FIELD

The present invention relates to a reflector for exposure light having a function of reflecting exposure light, such as mask blanks of exposure masks and reflection mirrors, the reflector being used when a circuit pattern is transferred by exposure light to a subject to be exposed such as a wafer in a lithograph process of manufacturing a semiconductor device, and to a reflector manufacture method. The present invention also relates to a mask having a function of reflecting exposure light. The present invention also relates to an exposure apparatus constituted of exposure light reflectors. The present invention also relates to a semiconductor device manufacture method using an exposure light mask.

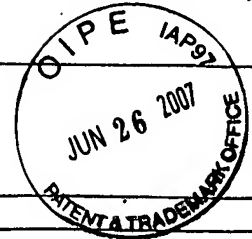
BACKGROUND ART

Recent fine semiconductor devices require to minimize a pattern width (line width), a pitch between patterns and the like of a circuit pattern to be formed on a wafer and or a resist pattern for forming the circuit pattern and the like. This minimization request can be dealt with by shortening the wavelength of ultraviolet light to be used as exposure light to resist. As miniaturization of semiconductor devices progresses more, the wavelength of ultraviolet light to be used as exposure light is shortened to, for example, a wavelength of 365 nm for semiconductor devices under a 350 nm design rule, a wavelength of 248 nm for semiconductor devices under a 250 nm and 180 nm design rule, and a wavelength of 193 nm for semiconductor devices under a 130 nm and 100 nm design rule, ultraviolet light having a wavelength of 157 nm

JUN 28 2007

Attorney's Docket No. SON-2647

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION
English Language Declaration



As below named inventors, we hereby declare that:

Our residence, post office address and citizenship are as stated below next to our names.

We believe we are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled
REFLECTOR FOR EXPOSURE LIGHT AND ITS MANUFACTURE METHOD, MASK, EXPOSURE APPARATUS
AND SEMICONDUCTOR DEVICE MANUFACTURE METHOD
 the specification of which

(check one)

is attached hereto.

X was filed on April 18, 2003 as

Application Serial No. PCT/JP03/05000
 and was amended on _____

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent of inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed
P2002-118941	Japan	22/04/2002	X
(Number)	(Country)	(Day/Month/Year Filed)	Yes No
PCT/JP03/05000	PCT	18/04/2003	X
(Number)	(Country)	(Day/Month/Year Filed)	Yes No
(Number)	(Country)	(Day/Month/Year Filed)	Yes No

We hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 and 1.63(d) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

JUN 28 2007

Attorney's Docket Number: SON-2647

English Language Declaration

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Ronald P. Kananen, Reg. No. 24,104; Ralph T. Rader, Reg. No. 28,772;
Michael D. Fishman, Reg. No. 31,951, Richard D. Grauer, Reg. No. 22,388;
Joseph V. Coppola, Sr., Reg. No. 33,373; Michael B. Stewart, Reg. No.
36,018; Steven L. Nichols, Registration No. 40,326

Send Correspondence to:

Direct telephone calls to:

Ronald P. Kananen, Esq.
RADER, FISHMAN & GRAUER
The Lion Building
1233 20th Street, N.W., Suite 501
Washington, D.C. 20036

Ronald P. Kananen, Esq.
(202) 955-3750

Full name of first joint inventor	Minoru SUGAWARA	
Inventor's signature	<i>Minoru Sugawara</i>	Date 22/09/2004
Residence	kanagawa, Japan	
Citizenship	JAPANESE	
Post Office Address	c/o SONY CORPORATION 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, TOKYO, JAPAN	
Full name of second joint inventor		
Second Inventor's signature		Date
Residence		
Citizenship	JAPANESE	
Post Office Address	c/o SONY CORPORATION 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, TOKYO, JAPAN	
Full name of third joint inventor		
Third Inventor's signature		Date
Residence		
Citizenship	JAPANESE	
Post Office Address	c/o SONY CORPORATION 7-35, KITASHINAGAWA 6-CHOME, SHINAGAWA-KU, TOKYO, JAPAN	

(Supply similar information and signature for subsequent joint inventors.)

JUN 28 2007



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPL NO.	FILING OR 371(c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLMS	IND CLMS
10/510,725	10/08/2004	2872	1426	SON-2647	20	5

CONFIRMATION NO. 7337

CORRECTED FILING RECEIPT



OC000000023283012

23353

RADER FISHMAN & GRAUER PLLC
 LION BUILDING
 1233 20TH STREET N.W., SUITE 501
 WASHINGTON, DC 20036

Date Mailed: 04/06/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Minoru Sugawara, Kanagawa, JAPAN;

Assignment For Published Patent Application

Sony Corporation, Tokyo, JAPAN

Power of Attorney: The patent practitioners associated with Customer Number 23353.

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/JP03/05000 04/18/2003

Foreign Applications

JAPAN 2002-118941 04/22/2002

If Required, Foreign Filing License Granted: 04/06/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is: **US10/510,725**

Projected Publication Date: Not Applicable

Non-Publication Request: No

JUN 28 2007

Early Publication Request: No

Title

Reflector for Exposure Light and its Manufacture Method, Mask, Exposure Apparatus and Semiconductor Device Manufacture Method

Preliminary Class

359

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The

JUN 28 2007

date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

JUN 28 2007